

“Quick and Dirty” Green Procurement Guide

(Everything you Really Need to Know about “Buying Green”)

What is Green Procurement?

Green Procurement is the purchase of environmentally preferable products and services. The Green Procurement Program (GPP) is intended to increase green purchasing by Federal agencies. Products made with recycled materials were the first to be included, and the program was known as “affirmative procurement” (AP). In 2004 the program was expanded to include several other procurement preference programs, also known as “GPP program elements.” The AP program was renamed “Green Procurement Program” to reflect the broader emphasis on all types of green products.

THE GPP INCLUDES THESE **MANDATORY** COMPONENTS:

- ✓ Recycled content products, also known as Comprehensive Procurement Guideline (CPG) Items
- ✓ Energy Star® and energy-efficient products; energy efficient standby power devices
- ✓ Alternative fuel vehicles/alternative fuels, and fuel efficient vehicles
- ✓ Biobased products
- ✓ Non-ozone depleting substances
- ✓ EPA Priority Chemicals

AND IT ALSO INCLUDES A **VOLUNTARY** COMPONENT:

- ✓ Environmentally preferable products (EPP)

Why is Green Procurement required?

DoD agencies spend more than \$100 billion for goods and services every year. With such purchasing power, we have a tremendous opportunity - and an obligation - to be responsible environmental stewards by choosing green products. It's also the law: GPP is mandated by the Resource Conservation Recovery Act, the Clean Air Act, and the Energy Policy Act. But green procurement is not just about “helping the environment” or complying with the law. Green products can perform better than their conventional counterparts. The choices that you make when purchasing products and services can significantly influence the environmental performance of your installation, since these decisions open the door to all of the wastes and emissions that your base must manage, track and pay for. When we buy a hazardous material, at the end of its life cycle it becomes a hazardous waste that is costly to manage and dispose of. When we buy products or design buildings that are energy

inefficient, we pay higher utility bills and contribute to regional air pollution - which in turn can affect our installation air permit program, limiting the amount of air emissions our mission essential operations are allowed to produce. Water-wasting products and systems drive up costs for water purchase and wastewater treatment, and products that are energy inefficient cost more to operate - wasting funds that could have been used for mission requirements.

For the details of the legal and regulatory requirements, please see chapter 2 of the Air Force Guide to Green Purchasing, on the AFCEE web site:

<http://www.afcee.brooks.af.mil/eq/ap/gg/guide.doc>

Who is responsible for GPP?

The short answer is: we all are. **Every person who specifies or purchases products and services is responsible for understanding and following the GPP requirements.** Contracting personnel, GPC holders, environmental management personnel, technical staff including engineers and architects, construction management and service contract quality assurance evaluators, and material control specialists are all instrumental in making the GPP work. This is a team effort. GPP requirements are part of the Federal Acquisition Regulation (FAR) and are mandatory for all Air Force organizations, including non-appropriated fund activities.

Government purchase cards (GPC) and contracting actions of all types must be used to obtain products and services that have less environmental impact. In other words, GPP applies to construction contracts; service contracts; products stocked by CE or other shops for in-house use; GPC purchases; commodity purchases; items bought from base supply stores; and everything else that your installation buys. The dollar value of the purchase is irrelevant. Green procurement requirements apply to everything from GPC micropurchases up to major weapon system acquisition contracts.

What do we have to do?

Each of the GPP program elements has an associated list of products that are designated for preferred Federal purchasing. Whenever we buy any product that's identified on one of these lists, we must buy a product meeting the environmental requirements (recycled content, energy efficiency, etc.) unless it is not cost effective or technically feasible. At the end of this document you will find the **Green Procurement Requirements Reference Sheet**, which is a summary of web page links for GPP-compliant product lists, third-party EPP standards, and selected sources of supply. Other checklists and forms you may wish to use are in Appendix C of the on-line Guide to Green Purchasing.

The rest of this document provides a summary of each GPP program element and its requirements.



RECYCLED CONTENT PRODUCTS (Affirmative Procurement)



The Environmental Protection Agency (EPA) has a formal list of recycled content products that is known as the “Comprehensive Procurement Guidelines (CPG)” List. For each product in the CPG, EPA has published their recommended recycled content percentages. EPA’s recommended content levels have been adopted as requirements for Air Force purchasers to follow. The lists of products and their recycled content requirements are on-line at www.epa.gov/cpg/products.htm. EPA published its first list in 1995 and updates it every few years. The list has grown from 24 items in 1995 to over 60 items today, and the list will continue to evolve, so be sure to watch the CPG web site for updated requirements.

The products that are covered by the CPG include paper and paper products, non-paper office products, vehicular fleet maintenance products, construction products, landscaping products, traffic control products, park and recreation products, and other miscellaneous products. Virtually every USAF organization is affected. The CPG includes printing and copier paper and a long list of other office supplies. It also lists items that are commonly used in building construction, renovation and maintenance projects. Base services including custodial, grounds maintenance, copier maintenance, and document printing all use items listed in the CPG. Vehicle maintenance activities require CPG-listed items. Purchases of traffic control devices, park and recreation products, and other miscellaneous items are also covered.

The FAR states three legitimate reasons for exempting a CPG purchase from meeting the EPA requirements. An exemption can be claimed, and a written justification is required, if the product can’t be acquired:

- ◆ Competitively within a reasonable period of time;
- ◆ At reasonable prices; or
- ◆ To reasonable performance standards in the specifications, provided a written determination by technical or requirements personnel of the performance standard's reasonableness is included with the justification.

For Air Force purposes, a product is “unreasonably priced” if it costs more than a comparable non-recycled or biobased product. This is a judgment call for

which no written policy exists. Procuring agencies are not required to purchase a product containing recovered materials if it costs more - and likewise, they are not required to claim the cost exemption if a product performs better but is more expensive. EPA wants purchasers to choose products having the best environmental performance. The decision to pay more or less for such a product is left up to the procuring agency. Green products may outperform their conventional counterparts. Since some GPP products are more durable or require less maintenance, the *cost of the product over its entire life cycle* should be considered.

Written justification is required for every non-compliant purchase of CPG items over \$2,500. There is no prescribed format for the written justification. The “Recovered Material Determination Form” in Appendix C of the Guide to Green Purchasing may be used, unless a different form has been adopted by your MAJCOM or installation.



ENERGY AND WATER EFFICIENT PRODUCTS



Federal agencies must reduce energy use, purchase energy-efficient products, increase the use of renewable energy, and conserve water. We are required to buy products that comply with federal energy efficiency requirements, and to design and operate buildings to minimize energy and water consumption. The Department of Energy’s Federal Energy Management Program (FEMP) and the Energy Star® program create the product lists for this GPP element. Energy conservation requirements affect all purchases of computers, monitors, printers, scanners, fax machines and copiers, and appliances; and building construction, renovation and maintenance projects. Water conserving product purchases mainly affect construction and renovation projects.

FEMP establishes *energy efficiency performance criteria* for Heating, Ventilating and Air Conditioning (HVAC) systems; appliances; construction products; pumps, motors and transformers; lighting products; and office equipment. See www.eere.energy.gov/femp/technologies/eeproducts.cfm. **Energy Star®** is the government-backed program that recognizes the most energy efficient of these products. Products that are in the top 25% are eligible for the Energy Star rating; manufacturers can submit these products for certification and the results are listed at www.energystar.gov/products. Energy Star ratings have been awarded to building construction products (roof products, windows, doors, skylights); residential and commercial appliances; and HVAC and lighting products. When buying these items, look at the Energy Star list first. If you can’t find a cost effective Energy Star product, go to the FEMP website and find a compliant product there.

There are also Energy Star ratings for whole buildings. **Commercial buildings** can earn Energy Star labels by performing in the top 25% of similar buildings nationwide. See www.energystar.gov/index.cfm?c=business.bus_index. Energy Star qualified **homes** are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than the state energy code, whichever is more rigorous. For more information see www.energystar.gov/index.cfm?c=new_homes.hm_index.

Energy Star criteria measure the energy consumption of products in use, while **standby power** measures the energy consumption of products that are turned off or in “sleep” mode. FEMP has established standby power requirements for a variety of electronic equipment types, including computers, monitors, printers, copiers and fax machines. For the product list and criteria, please see www.eere.energy.gov/femp/technologies/eep_standby_power.cfm.

Water efficiency is an integral part of every comprehensive energy management program. This is because water requires a significant energy input for treatment, pumping, heating and process uses. FEMP’s Water Efficiency program has established ten Best Management Practices for water conservation at federal facilities. These are explained in the Air Force Water Conservation Guidebook, www.afcesa.af.mil/ces/cesc/water/cesc_watercons.asp.

Energy- and water-conserving product purchases are **mandatory** elements of the Air Force GPP. In addition, Air Force installations are **encouraged** to support federal alternative energy goals by purchasing green power where it is available and cost-effective, and by including renewable energy technologies in construction projects where appropriate. There are several options for purchasing power from renewable energy sources. FEMP’s Renewable Energy program helps federal agencies identify the best method. HQ AFCEA/CESM assists Air Force bases with green energy purchases and is our liaison with this FEMP program.



ALTERNATIVELY FUELED VEHICLES, ALTERNATIVE FUELS, AND FUEL EFFICIENT VEHICLES

This element of the GPP affects our purchases of light, medium, and heavy-duty motor vehicles (other than military tactical, law enforcement, and emergency vehicles), and the purchase of fuel that is used in alternative fuel vehicles.

The Energy Policy Act (EPACT) says that of the total number of vehicles acquired by a federal fleet after 1999, 75% shall be AFVs. Agencies must use alternative fuels to meet a majority of the fuel requirements of those motor

vehicles by the end of FY 2005. Federal agencies are to arrange for refueling of AFVs at commercial fueling facilities that offer alternative fuels for sale. If these facilities are not convenient or accessible, agencies may enter into commercial arrangements including purchase, lease, contract, or construction.

EO 13149 requires agencies to increase the average EPA fuel economy rating of conventional passenger cars and light trucks acquired by at least 1 mile per gallon (mpg) by the end of FY 2002, and at least 3 mpg by the end of FY 2005, compared to FY 1999 acquisitions.

DOE's Clean Cities Program coordinates efforts between government and industry to accelerate the use of alternative fuels and expand the AFV refueling infrastructure. Their Alternative Fuels Data Center web site has more than 3,000 documents in its database, an interactive fuel station mapping system, listings of available alternative fuel vehicles, links to related Web sites, and much more: www.eere.energy.gov/afdc.

The Clean Cities web site also offers information about Advanced Technology Vehicles (ATV) at www.eere.energy.gov/cleancities/atv. These are vehicles that use advanced technologies such as fuel cells or hybrid drive trains. Although ATVs are not considered to be alternatively fueled vehicles as described in the EPACT, their purchase is still encouraged by the fuel efficiency requirements of EO 13149.

Alternative fuels include biodiesel, electricity, ethanol, hydrogen, natural gas, and propane. The Defense Energy Support Center (DESC) provides information through the Alternative Fuels Information Station (AFIS) web site. It contains tutorials about the EPACT requirements, ethanol, biodiesel, hydrogen fuel, and alternative fuel logistics: www.desc.dla.mil/DCM/DCMPage.asp?PageID=591.



BIOBASED PRODUCTS



Biobased products are "commercial or industrial products (other than food or feed) that are composed in whole or in significant part of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials." They are made from a renewable resource and they generally do not contain synthetics, toxins or environmentally damaging substances. Biobased products provide markets for US farm products and they also reduce dependence on fossil energy (particularly imported oil), so their use contributes to our energy, economic and environmental security.

USDA is the agency in charge of developing the biobased product program. This is a work in progress. On January 11, 2005, USDA published a Federal Register Final Rule establishing the program. This Rule describes how USDA will designate biobased items, but does not list specific items to be purchased. USDA will publish additional rules designating specific items and then we will have a certain amount of time, as stated by USDA in each new product designation rule, to include those products in our GPP.

Once USDA publishes a product list, Federal agencies must purchase the biobased items on USDA's list, and update their GPP to include the new products each time USDA publishes a rule designating additional items. USDA will provide guidance for purchasing these items with biobased content. They also will establish a voluntary biobased products labeling program.

USDA currently has identified 83 potential items for its biobased item list and hopes to have the first of these rules completed before the end of 2005. The designated biobased items may include office products, printing products, transportation fleet maintenance products, construction products, cleaning and landscaping products. Projects for building construction, renovation and maintenance; services including custodial, grounds maintenance, copier maintenance, and printing; transportation fleet maintenance; and purchases of office supplies will all provide opportunities for biobased item purchasing.

Although the items are not formally designated yet, Air Force installations should still go ahead and include biobased products in their green procurement programs. The 2005 rule says that federal procurement programs should favor items composed of the highest percentage of biobased product practicable, except when such items are not available within a reasonable time; fail to meet performance standards; or are available only at an unreasonable price. Note that these are the same exemption criteria that apply to the buy-recycled program. However, written exemptions are not required when a biobased product is not selected.

There will be some overlap between the CPG list for recycled-content products and the new USDA list for biobased items. USDA's Federal Register notice says that procurements that are subject to the CPG do not also have to satisfy the new biobased product requirements, if the two sets of requirements are inconsistent. But this does not mean that CPG requirements must automatically be followed in place of biobased purchasing. Purchasers should look at the benefits and costs of both types of products, and select the one that provides the best value overall.



NON-OZONE DEPLETING SUBSTANCES



The Montreal Protocol resulted in over 160 countries ending the production of Ozone Depleting Substances (ODS). Each federal agency must maximize the use of safe alternatives to ODS; develop a plan to phase out the procurement of Class I ODS; and utilize the DoD ODS Reserve to reclaim and recycle Class I ODS for mission critical uses. All AF requirements for Class I ODS must be approved by a Senior Acquisition Official (SAO) and the product must be acquired from the ODS Reserve. See AFI 32-7086, Hazardous Materials Management, Chapter 4 for more information.

Besides weapon systems, ODS are used in building construction, renovation and maintenance products; metals cleaning, electronics cleaning and precision cleaning; and fire suppression systems. EPA established the **Significant New Alternatives Program (SNAP)** to identify alternatives to Class I and Class II ODS. SNAP covers refrigeration and air conditioning; foam insulation; cleaning solvents; fire suppressants; aerosol solvents and propellants; sterilants; and adhesives, coatings and inks. Lists of acceptable and unacceptable substitutes are provided on the web site, www.epa.gov/ozone/snap/lists/index.html. It is illegal to replace a Class I or Class II substance with any substitute which the EPA Administrator has deemed unacceptable. Before installing ODS substitutes in air conditioning and refrigeration systems, always follow the Original Equipment Manufacturer (OEM) recommendations. Some substitutes may result in reduction in equipment capacities and changes in operating temperatures.



EPA PRIORITY CHEMICALS



In order to reduce federal agencies' usage of harmful chemicals, Executive Order 13148 directed EPA to develop a list of priority chemicals "used by the Federal Government that may result in significant harm to human health or the environment and that have known, readily available, less harmful substitutes for identified applications and purposes." EPA has defined the priority chemical list to include cadmium, lead, polychlorinated biphenyls (PCBs), mercury, and naphthalene. Federal agencies must develop and support goals to reduce usage of these chemicals by 50 percent by December 31, 2006.

If you buy these chemicals or products containing them, look for alternatives. The Air Force pollution prevention program focuses on identifying substitutes for these and other hazardous chemicals. Consult your installation Pollution

Prevention specialist to see what local initiatives are underway for toxic chemical use reduction. Also, the PROACT environmental research service assists USAF customers with product substitution inquiries free-of-charge: www.afcee.brooks.af.mil/pro-act/PRO-ACThome.asp.

The GPP program elements described up to this point have all been mandatory. There is also a voluntary GPP program element which is known as:

ENVIRONMENTALLY PREFERABLE PURCHASING (EPP)



EPP encourages us to look holistically at all of the environmental attributes of a product or service, whether it is part of a mandatory GPP program or not, and then select the one that has the least overall environmental impact. Executive Order 13101 defines “environmentally preferable” as “products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.”

EPA’s EPP web site offers training materials to explain the concept of EPP and how to apply it. They are available in slide format, or as an on-line multimedia presentation: www.epa.gov/oppt/epp/gentt/index.htm. EPP encourages us to buy any products and services that are more environmentally friendly than what we routinely purchase, but are not already mandated by one of the other GPP programs described above.

The Defense Logistics Agency (DLA) is leading a program to improve opportunities for federal purchasers to buy environmentally preferable products. DLA chairs a working group that is tasked to:

- ✓ Increase the number of environmentally friendly products available through the federal supply system;
- ✓ Define a series of Environmental Attributes (criteria) to be applied to products (see www.dlis.dla.mil/epp/attributes/approved.asp) ;
- ✓ Encourage small business and other industry to manufacture and provide products and services to DoD that have less environmental impact and contribute to hazardous waste reduction.

Many of the Environmental Attributes reflect the mandatory purchasing programs that were already described in this Guide, such as “EPA Recycled-Content Products.” Other attributes such as “Low Volatile Organic Compound Products” have not yet been adopted as mandatory purchasing requirements.

EPA's EPP Database, found at <http://yosemite1.epa.gov/oppt/epstand2.nsf>, is a tool to make it easier to purchase products and services with reduced environmental impacts. Environmental information on over 600 products and services is included. This database will help you "buy greener" by linking you to:

- Contract language, specifications, and policies created and used by federal and state governments and others to buy environmentally preferable products and services.
- Environmental standards and guidelines for the product you want to buy.
- Vendor lists of product brands which meet these standards.
- Other useful sources of information on the environmental preferability of products and services (e.g., EPP Updates, guidance documents, fact sheets, EPP case studies, and miscellaneous information useful to government purchasers).

How do we execute the GPP program?

Training and awareness are the first step. By reading this Guide and knowing your responsibilities, you are already well on your way to a successful program. The following page of this document shows you how to access the GPP web-based course that is referenced in the new Air Force GPP policy memo.

For more details on suggested processes and procedures for "how to do" GPP please refer to Chapter 3 of the full length "Guide to Green Purchasing" on the AFCEE web site (see the link below). It includes sections on applying GPP to commodity purchases, construction and service contracts, and in-house projects.

Where can I get more information about GPP?

The USAF Guide to Green Purchasing is your reference for all the details:
<http://www.afcee.brooks.af.mil/eq/ap/gg/guide.doc>

The AFCEE web page also offers a GPP brochure, fact sheets, briefing slides, the Contracting Officer's Guide to GPP, policy documents, and links to web sites for Federal environmental programs and information services.
<http://www.afcee.brooks.af.mil/eq/programs/progpage.asp?PID=1>

HOW TO REGISTER FOR GPP TRAINING ON THE GOLEARN WEBSITE



Welcome. The Gov Online Learning Center is located at www.golearn.gov.

Registering in the Gov Online Learning Center

If this is the first time taking a course at the Gov Online Learning Center you must first register in the system. **When you register select “Defense” for Organization and “Air Force” for Agency. For the Division field type in your functional role, (i.e. Contracting, Civil Engineering).** Registering in this manner will enable OPM to send functional specific training data to the Air Force to comply with DoD training metrics.

Registering for the Green Purchasing Course

To register for the Green purchasing course, you should first log on with your email and password (located at the top banner of the GoLearn site). Next, click on the *Full Catalog* button on the top navigation bar, you will see the first page of the Catalog. Click on the *Free Catalog* category and select the *Legislatively Mandated and Agency Required Topics* category. Then choose the following by clicking on its title:

(Course ID OPM008)

After you have clicked on the course title, hit the register button. You will then see 2 multiple choice questions on the purpose and type of training. For the 1st question, you should select the last choice on the bottom of the page ‘Legislatively Mandated or Agency Required’ and hit the continue button. Answer the 2nd question as appropriate and hit the submit button. You are on your way to a great learning experience with the Gov Online Learning Center.

To Begin the Course

After you have registered for the course, click on the *My Courses* button on the top navigation bar. Courses you registered for are displayed. Select the *What is Green Purchasing, Anyway?* course and begin the course.

Course Completion

Once you have successfully completed the course, you will be able to print a completion certificate. To get your certificate, click on the *My Courses* button again. Each course will have a status (complete, incomplete or not attempted). When you have completed a course, there will be a green link that will take you to a certificate.

Continuous Learning Credit

Acquisition personnel receive 3 Continuous Learning (CL) credit points for completing this course. Personnel may use the web-based Acq Now CL tracker to document course completion and receive credit, <https://www.atrrs.army.mil/channels/acqnowcl/>

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Green Procurement Requirements Reference Sheet – Page 1

Select Sources of Supply for Environmentally Preferable Products and Services

- GSA: <http://www.gsa.gov/environ>
- DLA: <http://www.dscr.dla.mil/catalogs/catalog.htm>
- Energy Star®: <http://www.energystar.gov/> (note: Energy Star® does not sell products, but provides a list of manufacturers and their certified products)
- JWOD: <http://www.nib.org/JWOD%20Catalog/index.html>
- UNICOR: www.unicor.gov/about/erecycle.htm
- FEMP: http://oahu.lbl.gov/cgi-bin/search_data.pl

Determining EPP Attributes for Specific Purchase Types

- For paints, carpet, office supplies, cleaners and particle board purchases:
<http://www.greenseal.org/recommendations.htm>
- For cleaners:
<http://www.epa.gov/opptintr/epp/cleaners/select/>
- For construction projects:
<http://www.epa.gov/opptintr/epp/tools/bees.htm>

GPP Compliant Product Listings

- CPG: <http://www.epa.gov/cpg/products.htm> (see reverse side of this page for the 2004 list of recycled-content products)
- Biobased: <http://www.biobased.oce.usda.gov/public/index.cfm>
- FEMP: <http://oahu.lbl.gov>
- Energy Star:
http://www.energystar.gov/index.cfm?fuseaction=find_a_product.
- Alternatives to Ozone-Depleting Substances:
<http://www.epa.gov/ozone/snap/lists/index.html>

Resources for EPP Product Selection

EPA Database of Environmentally Preferable Products and Services: <http://yosemite1.epa.gov/oppt/eppstand2.nsf>

Green Procurement Requirements Reference Sheet – Page 2

The list below is provided as a quick reference for the U.S. EPA-designated CPG items as of 2004. Green procurement requirements mandate that GPC holders purchase products that meet EPA recycled-content requirements for all purchases of the items listed. GPC holders record these purchases on the “GPC Purchasing Considerations and Guidelines Log.”

For questions regarding whether products count as “U.S. EPA-designated” or what the required recycled content for the item is, refer to the product descriptions on U.S. EPA’s Web site at www.epa.gov/cpg/products.htm. The EPA web site also lists any products that have been added to the CPG program after 2004.

Construction Products

Building insulation products
Carpet and carpet cushion
Cement and concrete containing coal fly ash, ground granulated blast furnace slag, cenospheres, or silica flume
Consolidated and reprocessed latex paint
Floor tiles
Flowable fill (backfill)
Laminated paperboard
Modular threshold ramps
Nonpressure pipe
Patio blocks
Railroad grade crossing surfaces
Shower and restroom dividers/partitions
Structural fiberboard

Landscaping Products

Compost made from yard trimmings or food waste
Garden and soaker hoses
Hydraulic mulch
Lawn and garden edging
Plastic lumber landscaping timbers and posts

Non-Paper Office Products

Binders, clipboards, file folders, clip portfolios, and presentation folders
Office furniture
Office recycling containers
Office waste receptacles
Plastic desktop accessories
Plastic envelopes
Plastic trash bags
Printer ribbons
Toner cartridges

Paper and Paper Products

Commercial/industrial sanitary tissue products
Miscellaneous papers (tray liners)
Newsprint
Paperboard and packaging products
Printing and writing papers

Park and Recreation Products

Park benches and picnic tables
Plastic fencing
Playground equipment
Playground surfaces
Running tracks

Transportation Products

Channelizers
Delineators and flexible delineators
Parking stops
Traffic barricades
Traffic cones

Vehicular Products

Engine coolants
Rebuilt vehicular parts
Re-refined lubricating oils
Retread tires

Miscellaneous Products

Awards and plaques
Bike racks
Blasting grit
Industrial drums
Manual-grade strapping
Mats
Pallets
Signage
Sorbents